

ABSTRACT OF THE DISCLOSURE

Devices for reading or writing electromagnetic information include a wafer substrate piece disposed between an electromagnetic transducer and an electrostrictive or piezoelectric actuator. The substrate piece is shaped as a rigid body adjoining the transducer and as a flexible element connecting the body and the actuator. To fabricate, at least one electrostrictive layer and many transducers are formed on opposite sides of a wafer that is then cut into rows containing plural transducers. The rows are processed from directions generally normal to the wafer surface upon which the transducers were formed, by removing material to form a head, flexures and a media-facing surface on the head. Conductive leads are formed on a back surface of flexures connecting the transducer with drive electronics. The flexures are aligned with forces arising from interaction with the media surface and from seeking various tracks, reducing torque and dynamic instabilities and increasing actuator access time.

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